

# LOW FREQUENCY BILATERAL COMMUNICATION OVER DISTRIBUTED POWER LINES

## ABSTRACT OF THE DISCLOSURE

A system and method for providing full-duplex data communications between an electric power distribution station and a power consumer via the power distribution line providing electric power is provided. A first information transmitter, coupled to the power distribution circuit, provides first information signals concurrently with the power signal to the power consumer via the power distribution line. A first information receiver, coupled to a power consumer device powered by the electrical power signal, receives the first information signals via the electric power distribution line. A second information transmitter coupled to the power consumer device provides second information signals concurrently with the electrical power signal. A second information receiver, coupled to the power distribution circuit, receives the second information signals via the electric power distribution line. The information signals transmitted on the power distribution line can be transmitted at a frequency lower than the frequency of the transmitted power signal.

**CERTIFICATE UNDER 37 CFR 1.10:**

"Express Mail" mailing label number: EM531692185US  
Date of Deposit: September 23, 1997

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Assistant Commissioner for Patents, Washington, D.C. 20231.

By: Jim Chalkin  
Name: